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<u>Abstract</u>

A computerized method for determining a tilt parameter of a cutting head of a fluid-jet apparatus. The method includes receiving a target-piece shape, describing an ordered path defining the target-piece shape, and segmenting the path into small straight lines of approximately equal length. The method further includes determining a cutting-head translation speed for each of the small straight lines, determining a tilt parameter of the cutting head with respect to the plane of the workpiece in response to the speed and a fluid jet-shape parameter for each of the small straight lines, storing the small straight lines and the determined tilt parameter associated with each small straight line in a memory, and sending the stored data to the fluid-jet apparatus. The method may include controlling the tilt of the cutting head in accordance with the tilt parameter for each small straight line as the cutting head cuts the workpiece.